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ABSTRACT

Although the work of Celestin Freinet has exerted considerable influence on European education, it remains largely unknown to English-speaking educators. The Modern School Movement (MSM), which Freinet founded in 1926, is worldwide in scope, and has affiliated organizations in 13 countries with correspondent groups in more than 20 nations. The MSM is the largest student learning network ever to have used educational technologies as a central aspect of its day-to-day functioning. Published literature on the practice of the MSM offers a multifaceted, critical perspective on six decades of technology-mediated intercultural learning networks that can serve as a rich source for educators. The history of the MSM is traced, emphasizing developments that have led to the correspondence exchanges of matching classes and partner classes among schools. The MSM encourages individual correspondence between students, as well as collective exchanges of cultural packages, letters, and audiovisual presentations. This paper discusses teacher development, the use of classroom technology, and organizational structure and issues. Also reviewed are implications for educational research and practice in a cross-cultural context. (Contains 63 references.) (SLD)

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Interscholastic correspondence exchanges in Célestin Freinet's Modern School Movement: Implications for computer-mediated intercultural learning networks

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Keynote Address, November 17, 1990
First North American Freinet Congress
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The work of Célestin Freinet (1896-1966) has exerted a considerable influence on European education, yet remains largely unknown to English- speaking educators. Today, the Modern School Movement (MSM) which he founded in 1926 is worldwide in scope and counts among its adherents 10,000 members in France alone, with affiliated organizations in 13 countries and "correspondent" groups in more than 20 nations. Each summer, delegates from these countries attend the conference of the Federation Internationale des Mouvements d'Ecole Moderne (FINEM). A teacher-owned and -managed publishing house, the Cooperative de l'Enseignement Laic (CEL), which Freinet established as a conduit for disseminating teacher-produced materials, yielded a gross income of $3 million in 1980 and employed a staff of 130 (Lee, 1980, 1983). The CEL distributes a full range of audiovisual equipment and accompanying manuals authored by teachers who have tested these educational media in their classrooms. The Institut Cooperatif de l'Ecole Moderne (ICEM) serves as a clearinghouse for thousands of teachers and their students seeking other classes around the world for "interscholastic exchanges." Freinet wrote or coauthored with other teachers scores of books and monographs which are available in the original French and in ten other languages, including Arabic, Esperanto, German, Italian, Polish, Russian, and Spanish. Yet Freinet's thought remains largely unknown in the English-speaking world since, with the exception of a single short volume of metaphorical writings (Freinet, 1990) and a brief anthology (Clandfield & Sivell, 1990), no writings have been published in English.

In this paper, I will focus on the MSM as the largest student learning network ever to have employed educational technologies as a central aspect of its day-to-day functioning. Contemporary investigators of modern educational technologies can refine their research strategies through a careful analysis of an educational experience as broad and as extensively documented as that of the MSM. Well-designed research is urgently needed to document the effectiveness of the telecommunications links which are becoming commonplace in

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today's schools for promoting literacy in one or more languages (Sayers & Brown, 1987). Therefore, I will conclude with several suggestions for future research into computer-mediated intercultural **and multilingual** learning networks.

Though it seems reasonable to examine the history of earlier me dia for guidance in investigating contemporary writing networks which employ computers, research on educational technology has more often been characterized by a too narrow focus on the most recent innovation. In **Teachers and Machines** (1986), Larry Cuban examined the history of the audiovisual, broadcast, and interactive media which have been promoted for instructional purposes in US schools since 1920. His investigation revealed for each new media a similar pattern of "top down" implementation and infrequent coordination of technology-mediated instruction with existing curricula. As each technology was introduced into American schools, the latest innovation was treated as a clean, "revolutionary" break from educational practice with earlier media. The present paper seeks to counter this tendency by outlining directions for future research which are based on an analysis of the pedagogical experience of earlier educators who used classroom technologies as a key component in intercultural learning networks.

Interscholastic exchanges involving technology are certainly not restricted to those which have occurred in the MSM. Indeed, this educational practice can be characterized as both protean and perennial. If we define intercultural learning network as the regular sharing of writings between two or more groups of pupils with the explicit goal of improving collaborative learning skills, and if we consider educational technology to include classroom applications of one or more of the audiovisual, broadcast, and interactive media, then we discover a broad range of activity, particularly in the last decade.

Certainly, European educators in the MSM have pioneered the incorporation of classroom printing, audiotape recording, and other educational technologies as a key part of vast student correspondence exchanges involving thousands of schools. However, other technology-mediated intercultural learning networks have appeared in many nations on a more modest scale (Cummins, 1986; Eiferman, 1984; Emmens, 1985, 1986; Levin, Riel, Boruta & Rowe, 1984; Levin, Riel, Miyake & Cohen, 1986; Migliarini, 1987; Newman, 1987; Oliver, 1984; Peyton & Batson, 1986; Rosa & Moll, 1985; Sharson, 1985). In some cases, these networks have taken the form of writing exchanges between pairs of classes, which have been termed **partner classes**, **sister classes** or, in the United Kingdom and in countries formerly of the British Commonwealth, **twin classes** (Parker, 1983; Self, 1986). More recently, audiotape and videotape recording have been employed in the context of interculteral networks, and several computer-mediated networks have utilized mixed media to

encourage student writing (Riel, 1983; Sayers & Brown, 1987). While there have been few empirical studies of technology-mediated intercultural learning networks, numerous books, articles, and reports have provided anecdotal documentation of extensive classroom practice.

However, with the exception of the recent computer writing networks, only the MSM has achieved an international, multilingual scope. The published literature associated with other networks is scant by comparison. Although the prevailing canons of scholarship have changed over the decades, the MSM literature is marked by a critical, reflective quality with frequent reference to actual classroom practice and student writings, thus offering the contemporary reviewer multiple opportunities for comparing sources and considering alternative explanations. The published literature detailing the practice of the MSM offers a multifaceted, critical perspective on six decades of technology-mediated intercultural learning networks from the point of view of dozens of writers in several nations.

Extensive quotes from the writings of Freinet and his collaborators are given throughout this study. This has been done for several reasons. Care has been taken to select excerpts which summarize the major themes of Freinet's pedagogical theory, and which at the same time portray the relationships of each thematic concern to the theory as a whole. This could only be achieved through a judicious yet liberal selection of quotations from the published writings on the MSM. Moreover, as noted previously, virtually none of this work is available in English; indeed, the MSM literature which has been reviewed can only be obtained from sources outside of North America. All translations from Spanish, which have been checked against the original French where possible, are my own. This study attempts to provide a substantial introduction to the pedagogical theory behind the MSM for an English-speaking readership, a goal which can be achieved only by avoiding "snippets" and maintaining the integrity of the texts. Finally, such a strategy permits the reader access to sufficient textual evidence for independent verification of my interpretations.

1. Origins of the Modern School Movement

The origins and development of the educational thought and practice of Célestin Freinet may be traced in the documentary history of the MSM, **Naissance d'une Pedagogie Populaire** (The birth of a popular pedagogy) (1969/1975), edited and supplemented with a running commentary by his wife and collaborator, Elise Freinet. Fortunately for the bilingual English- speaking reader, Naissance has been translated into German, Italian, and Spanish.

Célestin Freinet began his teaching career in 1920 at

Bar-sur-Loup in the French Maritime Alps. Although he had suffered a serious lung wound in the First World War, he insisted on pursuing an active career as an elementary school teacher. In his delicate state of health, however, Freinet found it difficult to manage his classroom when following what he termed "traditional approaches". He required teaching techniques in which students as a group assumed more responsibility for their learning and where motivation grew naturally from collaborative activities rather than being imposed upon students by an intricate system of rewards and punishments meted out by the teacher.

The first of these techniques instituted by Freinet was the "learning walk". Weather permitting, students would join their teacher in exploratory walks through Bar-sur-Loup. During these walks, they would gather information and impressions which would form the basis for motivated classroom activities in reading and writing, science and math. As a regular follow-up activity to these walks, Freinet facilitated the authoring by the group and by individual students of "free texts" describing their experiences, which were collected in a folder. Soon Freinet was organizing most of his school day's activities around "learning walks". Early in his second year of teaching, he recorded in his diary the excitement surrounding the genesis of a group-authored story, "The Race of the Snails," which had been elicited by the creatures emptied from a student's pocket after one such learning walk. Afterward, the class moved on to other activities, but the ephemeral nature of this experience disturbed Freinet and set in motion a search for a new pedagogical technique. Elise Freinet comments:

> The children read the text, they copy it [from the blackboard], but this episode is no more than a fugitive moment in the course of the class: once the board is erased and the page is placed in the notebook, there remains no trace at all of the lived event which has been so profoundly etched in the children's spirits.
>
> It is necessary to find a means to link, without losing its continuity, the thought of the child with the final definitive text. Freinet ponders tirelessly, considering one idea after another, submerges himself in the life of his class, and has an intuition of something new. Suddenly he thinks of the printed page. This is the solution: the impeccable printed page, clear, that can preserve the majesty [of these moments,] ... where the individual manipulation of each letter opens up broad horizons. Doubtlessly, this is the solution. (E. Freinet, 1969/1975, p. 33).

In 1921 Freinet ordered his first printing press and began the lifelong process of incorporating this technology into the classroom, a process "which will awaken, year after year, an

authentic movement of popular education" (E. Freinet, 1969/1975, p. 33).

However, the beginning of the MSM may properly be dated with the first interscholastic exchange between Freinet and Rene Daniel, an elementary school teacher from Tregunc in the province of Finistere and the first adherent to the Modern School approaches. Freinet's diary records the arrival of the first package of printed "free texts" and local cultural artifacts from Daniel with the single entry: "October 28, 1924; we are no longer alone" (E. Freinet, 1969/1975, p. 45). Clearly, Freinet saw a vital link between the employment of printing as a classroom technology and the educational potential of "partner class" exchanges. It was more than a question of using the printing press to make sufficient copies of student writings for students and their parents, for local teachers and for pupils in the distant class.

> Classroom printing, with its educational, social and human implications, has led naturally to the practice of interscholastic correspondence, the logical link between the various techniques which grow out of and are expressed by the practice of printing itself --student-directed surveys, news articles on local history, geography, mathematics, and folklore-- all disciplines which completely change their complexion to become educational practices with a new life (C. Freinet, 1964/1969, p. 58).

Thus by 1924, after the first four of 46 years in the elementary school classroom, Freinet had formalized the two most basic techniques upon which his philosophy of teaching would be based: the complementary practices of classroom printing and interscholastic correspondence exchanges. There were 250 schools exchanging printed "free texts" by 1930 (E. Freinet, 1964/1969, p. 143) and in 1983 several thousand schools participated in the MSM every year (Lee, 1983).

Many of the most enduring traditions of the MSM were established in its earliest days. During the summer of 1926 Freinet began the practice, which continues even after his death with the publication of **L'Educateur Proletarien**, of distributing "circular letters," bulletins updating everyone who participated in the correspondence networks on the activities of their distant colleagues. The 1926-27 school year marked the beginning of two other continuing activities of the MSM, with the publication of **Le Gerbe**, a collection of students writings, and of a series of monographs authored by teachers on educational projects which they had undertaken with their partner classes. These were funded through the CEL, the educational publishing cooperative established and run by the members of the MSM. In August of 1927, the first of the annual Modern School Congresses met in Tours, a practice which also has continued until the

present day with regular meetings of MSM members in each of France's 95 Departments, a national Congress, and the annual summer meetings of the FINEM.

The MSM continued to grow in membership and influence until 1939, when Freinet was interned in a concentration camp by the Vichy government. Even there his educational work persisted; he organized study groups among the inmates and published a camp newspaper. There Freinet also wrote three works in which he attempted to elaborate a theoretical basis for his pedagogical practice: **L'Education du Travail** (Education through work, 1950), **L'Experience Tatonnée** (Hypothesis-building experience, 1948), and **L'Essai de Psychologie Sensible** (Essay on sensory psychology, 1949). After 1945, the MSM was reestablished in France and French-speaking Algeria, Belgium, and Switzerland. This period also marked the expansion of MSM activities in other European countries and beyond which continues unabated.

In the sections which follow, the writings of Célestin and Elise Freinet and the publications of various teachers who authored monographs for the MSM are examined in considerable detail to disclose the day-to-day workings of interscholastic exchanges as well as a number of the major themes of Freinet's pedagogical rationale for technology-mediated correspondence networks.

2. The organization of interscholastic correspondence exchanges between Modern School Movement schools

Les correspondances scolaires (Gervilliers, Berteloot & Lemery, 1968/1977), Number 20 from a series of monographs published by the Modern School Library, offers the most complete account of the structure of correspondence exchanges in the MSM.

Matching classes and forming partner class "clusters"

Partner classes in the MSM are often arranged by teachers themselves, perhaps at departmental, regional or national meetings or at international Congresses. However, the ICEM maintains a correspondence service which attempts to match classes of similar interests at all grade levels. Additionally, the ICEM arranges for pairs of partner classes to form "clusters" of 8-12 classes which receive periodic mailings from one another. While partner classes usually exchange writings or "cultural packages" on a daily or weekly basis, cluster class exchanges occur once or twice a month. Thus, the pairs of partner classes establish a much more personalized communication based on: (1) letter writing between individual students, and (2) class-to-class correspondence, collective work, and joint projects. However, all the classes in the cluster regularly exchange printed texts in the form of student-authored "free texts" and class newspapers.

Pairing students for individual correspondence

The matching of students in MSM partner classes is accomplished in one of two ways. Teachers can exchange biographical sketches detailing students' background and interests and negotiate the pairings between themselves. Alternatively, students may send autobiographical sketches to their partner class and arrange the pairings themselves, with guidance from their classroom teacher. This latter practice is the procedure recommended by the ICEM.

> If we have insisted on the importance of the pairings, it is because we consider the aspect of affectivity to play a central role in these exchanges, so that the child feels involved and personally committed in this correspondence: but also we expect cooperative activity to arise [from exchanges between schools], which can enrich the class in a way that everyone can take advantage of (Gervilliers et al., 1968/1977, p. 65)

One way in which the exchange of individual letters is made more social is through the practice of sharing oral reports on correspondence. After receiving the envelope containing the latest batch of correspondence, the letters are read and each student immediately provides an update for classmates on the life of his or her correspondent. Through these running accounts, students come to "represent" their counterparts in the partner class. Because these oral reports arise spontaneously, it is critical that the teacher have some idea of the contents of the letters while maintaining the confidentiality of the personal exchanges between individuals. For this reason every package of letters includes a cover letter by the "sending teacher" which briefly describes her knowledge of the letters' contents, acquired through informal contact with her pupils.

Generally, after sharing the oral reports, a first draft of a response is begun and as the week progresses teachers provide further opportunities for later drafts. When every letter is completed, they are gathered in an envelope and posted to the partner class. However, in typical MSM fashion, teachers are constantly experimenting with new techniques. One such practice is that of the "lightning correspondence exchange" in which letters are sent on a much more frequent basis, usually daily, without waiting for every student in the class to complete their replies (Gervilliers et al., 1968/1977, pp. 177-186). This practice places more responsibility on each student for assuming the initiative in maintaining the correspondence.

Collective work: cultural packages, group-authored letters, printed or "free texts," and audiovisual presentations

Exchanges of individual letters are invariably supplemented with class-to- class correspondence and other collective work, both written and spoken. These group projects are included in "cultural packages" which might contain:

- Typical products from the region of the writers,
- Collective projects completed by the children themselves, as well as
- Gifts directed to the collectivity and some which are distributed to individuals.

These stimulate:

- Numerous activities upon arrival of the package and
- Interesting future investigations (Gervilliers et al., 1968/1977, pp. 104-105).

The typical cultural package contains collective letters which are usually organized under the teacher's direction and composed at the blackboard, or a draft might be authored by a committee of students and submitted to the whole group for their comments.

> A collective letter is, in a certain way, a mirror for the class and everyone wishes to find in the letter an image that generates pride and satisfaction. For this reason we attribute an important role to collective work. It is the basis for the social and moral formation of each individual. ... It is the indispensable letter so that everyone attains consciousness of the life and interests both of the local collectivity and that of their friends. (Gervilliers et al., 1968/1977, pp. 81-82).

An alternate form of collective letter involves the use of one or more audiovisual media. One common use of mixed media combines student-directed photography and audiotape recordings. Slides of the community are taken by students; when developed, the class views them and offers commentary on the slide sequence, simultaneously recording their "travelogue" on audiotape. The resulting slide show is included in the next mailing to their partner class, which in turn can tape record their reactions.

This use of mixed media provides a ready-made structure for student commentary. However, collectively-produced audiotaped letters, or "sound letters" as they are termed in MSM exchanges, require more planning, since unrehearsed tapes are rarely

effective. The implementation of each media in the MSM is explored extensively by Commissions composed of classroom teachers. Pierre Guerin, for example, headed the Commission on Audiotape Technology in the 1960s. His recommendations to beginning teachers on audiotaped letters:

> Never forget that listening to a tape of 20 to 30 minutes duration with pauses, silences, repetitions, and errors ... tires the listener and should be absolutely prohibited. Don't record for yourselves but for your listeners. The optimal realization is from 5-10 minutes, after editing. (Gervilliers et al., 1968/1977, p. 100).

These suggestions were not Guerin's personal opinions but rather were based on extensive surveys, observations, and investigations of effective practices in actual classrooms.

Cultural packages between partner classes often contain printed "free texts" and student newspapers; if printing presses are unavailable, the writings are mimeographed. Additional copies of these printed writings are produced for exchange with the other classes which compose the cluster. The procedures recommended by the ICEM for the productive exchange of free texts and newspapers between classes in the cluster are designed to provide regular feedback to young writers, reporters, and editors from their distant peers. In each class in the cluster, one student is selected as the contact person for another class's texts or newspaper. This Student Contact reads the texts which interest her and passes along these writings to her teacher and other classmates for their reactions. The teacher may select from these writings some for use as resource materials in classroom projects.

> Once a month, the Student Contact fills out and returns a sheet with reactions on the received newspaper: . The texts and drawings which were preferred by the class . Questions in order to obtain specific [missing] facts and clarifications of obscure points . Criticisms to encourage and stimulate a higher quality in the production of texts (Gervilliers et al., 1968/1977, p. 95).

The evaluation sheets, which serve as a link between the various member classes of the cluster, are viewed as an indispensable stimulus for improved writing and newsletter production.

> Don't imagine that the students who receive these sheets will react passively. Some feel proud to observe that their text or drawing has merited the admiration of one or several distant schools; this encourages them. Others will desire this same encouragement and push themselves to do better. As for criticisms, ... everyone will take these remarks into account for future productions. Those who don't submit their

> work to the judgment of others cannot benefit from their assistance to achieve new awareness. If they function in a closed system, they will tend to feel easily satisfied with their work. Only through collective work will stagnation be avoided (Gervilliers et al., 1968/1977, pp. 95-96).

However, it is important to stress that both individual correspondence and group projects are considered vital to successful partner class exchanges.

> [Collective projects] serve to reinforce the links established by individual correspondence. Without this regular and substantial interchange [of personalized correspondence], the relationships between the children would be superficial and anemic. If we have chosen this mixed form of correspondence, it is because these two aspects are complementary. Individual letters serve to personalize the exchange, responding to the need for affectivity, for comprehension, for contact. However, printed texts, as well as collective letters, albums, and other exchanges that grow out of the combined efforts of the collectivity, have the advantage of being more elaborated and enriching (Gervilliers et al., 1968/1977, pp. 86-87).

MSM exchanges between schools are highly structured to establish an affective basis for communication between classes and to create a complex social context to foster students' learning. However, Freinet viewed interscholastic exchanges as playing a central role in a mass movement for improving teacher education. The next section considers the potential of correspondence networks for advancing the professional development of teachers.

3. Professional Development of Teachers: Methods vs. Instruments and Techniques

A frequent theme in Freinet's writings concerns the distinction he drew between method and techniques and instruments. The earliest fully articulated expression of this theme appeared in a series of articles in **L'Educateur Proletarien** during the 1930-31 school year.

> Any investigation, whether pedagogical, industrial or commercial, must begin with science in order to arrive at art, which is the optimal organization of human harmony. It may happen from time to time that a few genial individuals manage to skip some of the stages and arrive at art without having passed through the uncertain stage of science. This happens in education, more than in other disciplines. But these artists are no more than a vanguard; they cannot specify a method by which those who would follow them might match their achievements other than through the painstaking work of slavishly following each of the steps they have

taken.

> The job of preparing the road which leads to this goal [of optimal organization], proceeding first from scientific investigation, and next to method and ultimately to art, is achieved through technique or, in our case, pedagogical technique. ... While it may be that one or another educator is an artist in the sense described above, one thing is certain: the general educational level of a country depends almost exclusively on the current progress of its pedagogical technique (E. Freinet, 1969/1975, pp. 134-135).

For Freinet, the goal of elevating the level of pedagogical technique, and thus the general educational level, could only be achieved by discovering and promoting techniques and instruments which were accessible to the majority of educators, regardless of their individual talent or professional formation.

Pedagogical techniques, in Freinet's conception, were approaches which employ innovative tools and instruments to help establish new relationships between students and teachers, providing invaluable feedback to educators useful for reflecting upon and improving their practice. Methods, on the other hand, impeded the general improvement of educators by encouraging uncritical imitation of preestablished curricula.

> It is not that, by using a less prestigious term [technique rather than method], we are arbitrarily restricting the scope of pedagogy. On the contrary: pedagogical technique --and this is its superiority over any method-- comprises by definition every kind of investigation and every sort of activity which coincide to make possible the work of the community educator. ... Someday, when pedagogical science has progressed considerably, when the workings of children's minds are finally known and comprehended by educators, and when, moreover, there exist optimum social conditions for education, only on that day will we be able to speak of a definitive method which is scientifically ordered; in fact, it will be the result of innumerable trial- and-error probings by pedagogical technicians such as we are now (E. Freinet, 1969/1975, pp. 134-35).

Although this editorial dates from the earliest days of the Modern School movement, many of the concerns outlined above reappear throughout Freinet's writings. The critique of methods and his espousal of techniques and instruments were responses to two "top-down" forces which placed unrealistic demands upon teachers: first, the extremely powerful French educational bureaucracy with its centralized, lockstep curriculum, and second, the highly structured methodologies of curricular reformers such as Decroly and Montessori, which to Freinet's thinking had ceased being innovations by becoming codified and

regimented.

Freinet's major criticism of these two types of "methods" was that neither could achieve success on a broad scale because they placed unrealistic demands upon teachers and were based on equally unrealistic estimations of the professional training of teachers. He felt that the official curriculum was difficult for the average teacher to implement, since motivation did not follow organically from classroom activities and thus had to be imposed and enforced by the teacher. In the absence of books, materials and in-service training to extend the brief and often inadequate professional preparation which teachers received in Normal Schools, Freinet saw little possibility of success for the curricula mandated by the French Ministry of Education.

Similarly, he viewed the methods espoused by current curriculum reformers as posing difficulties for the majority of teachers. According to Freinet, these methods assumed an inordinately high level of commitment and talent in teachers.

> It is not enough to pose the question [of educational change] in a merely idealistic domain and to ask educators to modify their teaching practices in the name of a "new education," putting their faith in an ideal. This may be valid for a few, but generally becomes tiresome.
>
> The important thing is that the educator understand the necessity for changing her practice, and that this change not presuppose too great an effort at readaptation, no greater than that provoked by breaking any everyday habit; it is important to offer her instruments, books, techniques, etc., a whole series of materials which cause her to say: "I like to work with these new techniques; I like this way of life. I'm not sorry to have left behind the traditional system of teaching" (E. Freinet, 1969/1975, p. 331).

Freinet argued that most teachers' talents could be developed only over time, and their commitment to new approaches would be conceded gradually as they experienced positive results. He saw preestablished methodologies as raising the threshold to innovation so high that most teachers were unwilling to take the first step. Central to the goal of promoting massive educational change was the effort to develop techniques and instruments that could reach the majority of teachers while offering a realistic prospect for ongoing, long-term professional development for teachers presently in classrooms.

> Our techniques, as their principal goal, must respond to the necessities of our public schools. Far from descending either from imaginary projects or from pedagogical theories, they must ascend exclusively from the base, from our own work, and from the life of the children in our renovated classes (C.

Freinet, 1969/1986, p. 67).

Techniques and instruments, in Freinet's conception, were concrete approaches and tools for transforming the quality of relationships both in the classroom and between schools, and thus creating a social network conducive to authentic educational reform.

In a word, the Modern School Movement set as its goal educational renovation on a massive scale. Techniques and instruments such as "free texts," classroom printing, student journalism and interscholastic exchange respond more directly to local realities, while making sense to students, and were considered preferable to fixed methodologies, whether imposed by centralized educational authorities or advocated by distant experts.

> We seek educational activities full of life, and linked to the deepest interests of students, activities which interest them and which they can see the value of and the need for; activities whose utility they understand and to which they can commit themselves totally; activities which generate enthusiasm and which have educational value. We are not against the admirable improvisational skills of some extremely gifted teachers, but we prefer activities which flow with the life of the classroom and which are valid for all schools in the country, no matter what the skills and aptitudes of individual teachers (E. Freinet, 1969/1975, p. 332).

Thus techniques and instruments, as defined by Freinet, can have a broader impact, appealing to students and teachers in diverse school settings.

However, it is important to stress that the use of new techniques and instruments in the context of interscholastic exchanges was not conceived as a way to "teacher-proof" the curriculum. While these new approaches and correspondence networks provide significant benefits to students by establishing a motivated context for emotional and academic development, Freinet maintained that they also forge links which can play a vital role in the professional development of teachers during the demanding process of learning to use new techniques and classroom technologies.

> We have also seen the fertile role which correspondence can play in the psychological, intellectual, and moral development of children. It exercises the same influence over educators. ... Correspondence is a simple, advantageous technique which, while lending to learning activities a genuine meaning, also allows everyone --teachers and students-- to fulfill themselves and to discover new paths to

> wider, fraternal cultural knowledge (Gervilliers et al., 1968/1977, p. 41).

In a word, the same interscholastic network which provides a milieu for meaningful personal and interpersonal development for students also serves to advance the professional development of the teachers involved.

Correspondence exchanges can play a pivotal role in promoting educational change by functioning as a supportive context where a teacher is free to experiment while adapting new approaches and technologies to the realities of her school and her particular style of teaching.

> These same instruments, though born of similar needs, are not utilized in the same way by all teachers. Everyone reserves the right to decide how she will use [new approaches] according to the necessities of her class, for their greatest benefit. Here is where the issue presents itself of adapting the new instruments to the realities of the school, of the environment, as well as adapting them to the teacher's mentality, which is not always quick to change. The introduction of new tools in the public schools and their optimum performance will be greatly facilitated by the human network that links each school with many others: interscholastic exchanges. It would be impossible to overemphasize the importance of this pedagogical technique for the communication of intellectual riches, a real source of many initiatives (E. Freinet, 1969/1975, pp. 168-69).

Freinet described the context provided by interscholastic exchanges as that of a scientific laboratory where teachers can discard the rigidities of fixed curricula and the latest teaching method in fashion. Instead, the interscholastic exchanges allow teachers to collaborate in the development of new techniques with their colleagues and thus remain vital as learners of teaching.

By rejecting fixed methodologies and by focusing attention on techniques and technologies that create new social contexts for learning, Freinet's goal was the creation of a popular pedagogy to promote educational reform on a massive scope.

> Contrary to what usually occurs with methods which are patented internationally, we do not present an immutable framework, nor a ceremony from which a teacher may not deviate for any reason on earth upon pain of undermining and betraying the spirit in whose name this rigidity was imposed.
>
> Instead we offer: instruments which we have fully tested, which teachers have created in large part, perfecting and adapting them to their needs; ... the general technique for

> employing these instruments; the principles for organizing the classroom life and work of the students, comprising both the permanent collaboration of teachers and the generalized practice of interscholastic correspondence. [emphasis added] (C. Freinet, 1969/1986, pp. 64-65).

Elise Freinet's documentary history of the MSM (1969/1975) is replete with teachers' writings which detail their professional growth. A typical account is that of Lina Darche from Isere:

> After starting down this new road, a teacher has to lay aside her old mentality, has to educate herself anew in order to see her students from a new angle. It isn't impossible, and in these tasks the children will be a great help, because the actions of each child in this new approach will mark the rhythm of the teacher's life. And definitely, after the initial period of trial-and-error, the job simplifies itself since we find ourselves in a new life where permanent contradictions, whether hidden or open, have no place as they do in the traditional methods used by teachers and their students. ... As long as we continue blocking children's need for self-expression ... we will not educate ourselves, in the most real sense of the word (pp. 163-164).

The Modern School Movement sought and continues to promote the intellectual and emotional growth both of students and their teachers. In this regard, interscholastic correspondence exchanges serve as the principal catalyst both for learning and for learning about teaching and learning.

4. The use of classroom technology and interscholastic exchanges to reestablish "psychic equilibrium" and to promote affective and moral development

In his theoretical works, **L'Experience Tatonnée** (1948) and **L'Essai de Psychologie Sensible** (1949), as well as in many monographs, Freinet portrayed the influence of contemporary media upon children as causing a profound "psychic disequilibrium" between them and their surroundings. "With our mass media we think we have attained new insight into life that seems to go beyond and make superfluous actual experience" (C. Freinet, 1963/1974, p. 28).

> Today our children are subjected, at times during several hours each day, to a total state of passive knowledge [through mass media]. They are familiar with everything, except their own environment: the Earth, the sea, the heavens, the secrets of the plants and the infinite world of animals and insects, the immensities of the planets. But this does not mean that they know the world they live in, from which they are monstrously alienated (C. Freinet, 1963/1974, p. 27).

Freinet argued that balanced psychological development in children is possible only through interaction, both socially with peers and adults and physically with the environment. "We understand that neither external science, nor verbalisms, nor imagery can replace this necessary engagement" (C. Freinet, 1963/1974, p. 28).

Freinet urged educators to give young people control over the same audiovisual and mass media which have generated their "psychic disequilibrium." By providing a social context designed to encourage social interaction and engagement with physical reality, teachers can play a decisive role in helping students achieve a more balanced personality development.

> Our fundamental concern, at every level, should be to bring children back to the true life of their surroundings, to confront them with the elements, to have them experience the elementary laws which govern their relationship with everything in their environment ... so that, strengthened by this firm engagement, they may resist the distortions fostered by the mass media. ... We confront this challenge with self-expression and creativity in all the disciplines, with individual and collective work, with permanent experimentation, with natural contacts with the environment through "free texts," printing, and correspondence, through historical, geographic, and scientific investigations, through reports and oral presentations. For this educational work, we resort to all the instruments, to every audiovisual technique at our disposal: records, photography, telephones, tape recordings, radio, movies, and even television (C. Freinet, 1963/1974, pp. 89-90).

By gaining power over the same technologies which threaten their personality development, and through more profound engagement with the social and physical worlds that determine their lives, children "construct their personalities and reflect on their lives" (C. Freinet, 1963/1974, p. 32).

> It is interscholastic correspondence, of all the techniques and instruments promoted by the MSM, which plays the decisive role in fostering a balanced personality development. Correspondence between schools is the technique that, in perhaps the simplest and most natural way, shapes the child into the conscious and active adult of tomorrow. ... It leads to a true cultural formation, offering to each individual several possibilities of action over his surroundings, causing a profound engagement with human beings and things past, present, and future (Gervilliers et al., 1968/1977, p. 15).

Interscholastic exchanges create a context where students can

engage with people in their own classroom and community as well as students, parents, and teachers from a distant community, while disengaging from the plethora of "secondhand" imagery generated by the mass media.

> Through correspondence, schools offer a break in this turbulence of imagery, in this random saturation that is modern life. It invites children to slow down in order to think, to become aware of their preferences, of their hopes, of their actions; or in a word, that they observe themselves living. It is a time of pause that calms the most agitated (Gervilliers et al., 1968/1977, pp. 19).

Once students "slow down in order to think," they begin to see their world with new eyes.

Through this new perspective children become more engaged with the world around them while developing sufficient distance from it to permit them to describe their lives to their distant partner class.

> Correspondence contributes in the broadest sense to learning which is rooted in life, provoking a kind of healthy reawakening. When we live very close to our surroundings and to people, we eventually come not to see them. We experience a kind of symbiosis, a phenomenon of erosion which deadens our ability to be surprised. But thanks to the questions which emanate from afar, our eyes are opened; we question, we investigate, we explore more deeply in order to respond with precise verifications to the inexhaustible curiosity of our correspondents, thanks to the natural motivation which gradually leads to an awareness of our entire geographic, historic, and human environment (Gervilliers et al., 1968/1977, pp. 29-30).

Interscholastic exchanges establish a motivated context in which children replace an uncritical, unquestioning view of their world with a more objective, conscious stance. The attempts by students to adequately respond to the surprising questions of their faraway collaborators encourages a simultaneous process of purposeful insertion into the reality which surrounds them and a distancing from it.

> The child, because she needs to describe them, develops a consciousness of the conditions of her life, of the life of her town or her neighborhood, even of her province. ... She had been living too close to these conditions and through correspondence exchanges she has distanced herself from them in order to better comprehend the conditions of her life. ... We must take advantage of this impulse of curiosity, this new vision, these instances of discovery to develop an appreciation for the simple beauty which bathes our everyday

world (Gervilliers et al., 1968/1977, p. 31).

Through correspondence networks, the MSM attempted to promote a heightened awareness of all aspects of a community's life --what would today be termed critical consciousness-- in young people and teachers at all educational levels.

Children's moral development was also an explicitly articulated objective of this intercultural learning network. Ivonne Mardelle, a teacher in an MSM classroom, described at some length the challenge teachers confront in working with children whose values had been distorted by common school practices.

> It is necessary, therefore, to destroy this custom which has been created and cultivated of mindless competition, of victory over one's neighbor rather than over oneself, to reject the easy solution for classroom discipline which consists of taking advantage of the lowest and most infantile of human inclinations toward egoism and to substitute more generous feelings for these base emotions, little by little, through a pedagogy of group work, which enriches everyone involved. But how? How to prepare children to rescue their own individuality, to develop it harmoniously, without infringing upon the personalities of their neighbors, but rather by practicing mutual assistance and cooperation? How do we arrange for this social transformation to suffuse our classrooms? One of the Freinet techniques which produces rapid and spectacular results if care has been taken in selecting the partner class is the practice of interscholastic correspondence. From the first writings children cast off their selfishness, they leave behind their egoisms, and there arises instead a common encompassing emotion, a unity of action and of thinking that had been sought in vain through other approaches (Gervilliers et al., 1968/1977, pp. 39-40).

Mardelle asserts that the introduction of collaborative work with a distant partner class can stimulate students' moral development. This claim is repeated throughout Freinet's writings and those of his colleagues in the MSM and is one which merits further consideration.

To Freinet's thinking, the development of a heightened awareness or critical consciousness of one's own reality aids in the development of a personal moral code, and both are fostered in the context of correspondence between schools. Students learn to see their own lives and the life of their community with new eyes when stimulated by the curiosity of distant correspondents; they also learn to take new perspectives and to accommodate points of view other than their own.

Through interscholastic exchanges the student acquires the

> custom of situating herself constantly in the place of "the other," to intuit how he will react, what he will understand, what he will think upon receiving a letter, a text, a package. This distant presence influences at each instant her behavior and her actions. We have seen, through concrete examples, that some students painstakingly seek to surpass themselves, voluntarily, in order to meet the expectations of this "other." These are the first self-evaluations, responsibilities, and social commitments that effectively combat egocentricism (Gervilliers et al., 1968/1977, p. 41).

The collective aspects of correspondence exchange are particularly valuable in this regard. As discussed in a previous section, for example, the collective letter serves as "the basis for the social and moral formation of each individual. ... It is the indispensable letter so that everyone attains consciousness of the life and interests both of the local collectivity and that of their friends" (Gervilliers et al., 1968/1977, pp. 81-82).

Thus for Freinet and his collaborators in the Modern School Movement, technology-mediated writing networks encouraged students' development in many domains, including but not limited to academic achievement. In particular, correspondence exchanges proved instrumental in reestablishing "psychic equilibrium" in an era dominated by mass media, in fostering critical consciousness of students' lives and communities, and in establishing an affective basis for children's moral development.

5. Interscholastic correspondence as a social context for literacy learning

In order to understand Freinet's conception of the positive effect which new classroom technologies and interscholastic exchanges can exert upon literacy development, it is necessary to consider his views on the history of technology in society, and particularly those technologies associated with language.

> Before the invention of the writing and later the printing press, culture was exclusively oral. We have the tendency to minimize it, in the same way that we minimize walking in this era of jet planes. ... Storytellers and poets were capable of inventing or repeating their creations --many times improvising them-- during hours or days on end. ... People had formidable memories, which in that epoch, were the essential media of culture. People thought by talking. Adults and children thought and learned by talking. Ideas and thoughts were spoken works for them ... (C. Freinet, 1963/1974, pp. 7-8).

With the introduction of writing and especially the printing

press, it became possible "to listen to those who were far away or those who were now dead" (p. 9). The new technologies, according to Freinet, radically transformed our ways of thinking, encouraging less reliance on memory and more dependence on the written text for transmitting cultural knowledge. Children are a major force in maintaining the influence of oral transmission of knowledge; it is they who conserve the remaining vestiges of orality in a society dominated by written expression.

> Perhaps a study has never been done on the differences in the process of a thought originating in oral and literate cultures. However, this difference exists and it is radical and definitive. If our society hasn't been totally converted into a society of the written word, it is only because the technique of writing is so complex and because the modes of expression and thought through spoken language continue to be more familiar to our children (C. Freinet, 1963/1974, pp. 7-11).

Although literacy has profoundly affected our ways of thinking, Freinet insisted that the printed word had by no means supplanted the spoken word. Orality and literacy coexist in modern societies: "The modern world still thinks more through the spoken word than through writing ... Thus there exists no profound and irremediable rupture between these two forms of expression" (C. Freinet, 1963/1974, p. 11) He viewed the challenge confronting educators as one of how to develop existing and nascent competencies for self-expression in both oral and literate terms.

In these views, Freinet anticipated the writings of contemporary advocates of what has been called the "theory of transformative technologies" (Heim, 1987), associated with the work of such scholars of classical literature and social history as Egan, Goody, and Ong, which argues that "writing is a technology which restructures thought" (Ong, 1986, p. 62). Much of this theory has arisen from an attempt to explain the radical transformation of Greek thought during the transition from the Homeric to the classical period, a period of dramatic change in forms of thought and methods of inquiry. Goody (1977) argues that this radical transition can best be accounted for by the introduction of the technology of writing. Thus, the theory of transformative technologies seeks to clarify the different ways in which orality and literacy influence strategies for thinking. Egan's recent summary (1987) of this literature and its implications for educational practice recalls Freinet's writings from another epoch:

> The economy of the mind inclines us to theorize that members of oral cultures --in which what one knows is what one remembers-- use particular mental strategies, and that some

> different strategies are used in literate cultures -- in which various mental operations can be enormously enhanced by visual access to organized bodies of knowledge. ... A clear understanding of children's orality is essential if we are to make what we want to teach engaging and meaningful (pp. 447, 469).

At the center of Freinet's approach to teaching literacy was the "free text". Free texts had their roots in oral rehearsals by students on possible topics of their own choosing for written texts. In many cases, topics arose naturally from a collective experience discussed previously which was common to classrooms in the MSM, the "walking lesson". Students and their teacher conduct learning tours through the community, bringing back to the classroom the raw material for learning projects and, quite often, the topics for free texts. At first, the teacher acts as scribe for students' oral rehearsals.

> The teacher listens to what the children say, orienting them in directions that seem favorable to her; she jots down the key words, thus preparing for the creation of a text that will be a higher manifestation, a synthesis and a magical coalescing of a lived experience. ... This text is written on the chalkboard, with the child illustrating it with a suggestive drawing if appropriate; later the teacher transcribes it in a classroom "Life Notebook" where drawings are also collected (C. Freinet, 1969/1986, p. 50).

However, after this initial introduction to dictating and illustrating texts, students enter a critical juncture in the process of acquiring literacy. The challenge, as Freinet viewed it, lies in making the goals of writing less abstract and more social.

> If drawing, like all artistic expressions we have mentioned, is sufficient unto itself because it produces beauty and inspires emotion, writing does not have the same engaging quality. The child doesn't seek it out or use it unless it is used for an evident goal, unless it is motivated by an organic necessity; otherwise, it becomes like an exercise bicycle, mounted on a stand, with its wheels turning in a vacuum, never achieving the movement which would be the normal consequence of pedaling (C. Freinet, 1969/1986, pp. 53-54).

Freinet's solution to the problem of embedding writing within a goal-directed activity involved the use of a classroom technology, the printing press, for producing multiple copies of student writings, together with the creation of a distant audience for young writers through interscholastic exchanges of printed texts, letters, and packages containing tapes, photographs, maps, and items of local interest. "Having

something to say, writing to be read, to be discussed, to be responded to critically, this is the grand motivation [for literacy] we should be seeking, and which is realized through classroom printing and the exchange of correspondence" (Balesse & Freinet, 1961/1973, p. 89).

> Writing makes no sense unless one is obliged to resort to it in order to communicate beyond the reach of our voice, outside of the limits of school. We have incorporated, in a practical way, this motivation through the sequence of our techniques: free [oral] expression; classroom printing of texts; illustration; production of student newspapers sent to parents and interchanged with other schools; and a far-reaching exchange of free texts between schools with an unimaginable educational impact (C. Freinet, 1969/1986, pp. 54-55).

Freinet's approach meets the criteria suggested by Vygotsky (1978) in the practical implications which conclude the chapter on "The Prehistory of Written Language" in **Mind in Society**: "... that writing should be meaningful for children, that an intrinsic need should be aroused in them, and that writing should be incorporated into a task that is necessary and relevant for life" (p. 118). Moreover, he anticipates the emphasis on creating meaningful contexts for student writing by recent advocates of "Process Writing" (Calkins, 1983, 1986; Graves, 1983).

In many of his writings, Freinet addressed the issue of how children in MSM schools learn the mechanics of written language naturally, without explicitly organized instruction in grammar and orthography. For Freinet, the goal was not to avoid direct instruction, but to create a context where the teacher's intervention answered a felt learning need, and in this regard, correspondence exchanges played a central role: "Wherever this powerful teaching device of interscholastic correspondence is introduced, it becomes immediately evident to what extent this natural technique is superior to the artificial contrivances which are arrayed in order to provoke the interest and work necessary to assure the acquisition of the essential academic skills" (Gervilliers et al., 1968/1977, p. 23). The learning of reading skills in Freinet's approach grows out of the interplay between children's greater familiarity with highly contextualized, locally produced free texts and their desire to understand the more decontextualized texts which they receive from distant "partner classes".

> If on the one hand the child ... creates new texts to satisfy his need for self-expression, utilizing words and expressions without worrying himself about the technicalities of syllables and letters, then on the other hand the practice of correspondence between classes places reading in an entirely

> different context. Now that the task is to decipher a written page, there is a totally different motivation, but equally personalized. ... This is the moment in which the child really moves into decoding and becomes aware of it as a process. Familiar words are immediately discovered and ones that have never been seen are analyzed perspicaciously. ... Our intervention, even an exercise sheet, is wanted to aid in easily decoding those words that might clarify for us what we want to know. The teacher's observations and help with syllabification are not an imposed system, but rather a necessity integrated with something lived, and therefore received with the same enthusiasm for everything that extends the child's life. (Balesse & Freinet, 1961/1973, pp. 64-65)

In Freinet's approach, the exchange of texts between faraway classes was an integral, complementary component of a two-part process of literacy development. First, students wrote spontaneously about familiar realities; later, as they shared writings with their correspondents, a felt need was created which powerfully motivated further learning about language mechanics. Indeed, for teachers in the MSM, the ability to comprehend writings from distant students formed a key aspect of their dual criteria for attainment of literacy: "To our way of thinking, our students know how to read when they can easily read all the works they and their classmates have written, and when they can read passably well the texts sent from their correspondents" (Balesse & Freinet, 1961/1973, p. 68).

Thus literacy learning, in Freinet's conception, while rooted in oral expression, requires a carefully defined and wide-ranging social context, coupled with the use of classroom technologies to adequately motivate the development of the literacy skills necessary for students to "take charge of this instrument [of written language] in order to adapt it to their own uses" (C. Freinet, 1969/1986, p. 50).

6. Implications for contemporary research into computer-mediated intercultural learning networks

The modern reader, upon first confronting the separate elements of Freinet's pedagogy, is repeatedly struck by its contemporary quality. As we saw previously, Freinet anticipated the writings of contemporary proponents of what has been called the "theory of transformative technologies" (Heim, 1987), associated with the work of scholars of classical literature and social history such as Egan, Goody, and Ong, which argues that "writing is a technology which restructures thought" (Ong, 1986, p. 62). Moreover, Freinet's concern with student- and group-authored writing, as well as the focus on creating naturalistic contexts for genuine compositions to real audiences of peers, prefigures much of the work by recent researchers into the "writing process" in school settings (Calkins, 1986; Graves,

1983).

Similarly, Freinet's focus on collaborative learning and small groupwork foreshadows the research interests of many contemporary scholars, both in regular education programs (Cohen, 1986) and in technology-mediated learning (Cummins, 1986; Riel, 1983; Sayers, 1988). The MEM's stress on teachers experimenting, modifying and validating new approaches through careful observation in their own classrooms and in cooperation with colleagues anticipates recent work on collaborative approaches to promoting teachers' skills as researchers (Goswami & Stillman, 1987; Mohr & Maclean, 1987).

However, focusing on these multiple parallelisms can actually obscure the true achievement of the Mouvement de l'Ecole Moderne. What is unique about Freinet's pedagogy is not that its constituent elements, considered separately, presaged many contemporary preoccupations, but rather that the MEM synthesized _such a range_ of educational practices into a fully articulated and unified approach to teaching which addresses so many concerns which remain vital today. The most enduring legacy of the MEM for today's educators is that of a carefully delineated portrait of intercultural teaching partnerships as a coherent, democratic setting for promoting educational improvement in diverse ways, and on a massive scale. This is clearly a legacy from which powerful lessons may be drawn by contemporary educators.

The experience of Freinet's Modern School Movement can provide contemporary educators and researchers working in technology-mediated intercultural learning networks with valuable lessons to guide curriculum and research design. It will be helpful to group the implications for educational and research projects by the thematic areas which were used in the analysis of the MSM offered in the previous sections: the effective organization of network activity; issues related to teaching and teacher education; networks as a context for cognitive and moral development as well as critical consciousness; and the creation of a social context for literacy development through correspondence exchanges. However, I will present these implications in a different order than the one employed in the thematic analysis.

Issues of teacher education

Freinet and his collaborators in the MSM viewed the various classroom technologies available to them as instruments around which new social relationships between teachers and students could be established, and importantly, between teachers and their colleagues. From this changed context for social interaction in the classroom and between classrooms, they expected that teachers would develop a new awareness of the

value of student-centered educational techniques, leading them to reject traditional teacher-centered methods. As Courtney Cazden (1988) has noted of the contemporary educational scene,

> ... some critics of traditional classroom practices ... hope that the computer can be an electronic Trojan horse that, once admitted into the classroom, will release its subversive power. Given the durability of traditional classroom structures, however, such a prediction seems unlikely to come true without deliberate action on the part of the teacher (p. 148).

Interscholastic exchange provides just such a setting for "deliberate action" on the part of teachers by creating a support system of partnerships between educators involved in a joint enterprise with new technologies.

Several issues merit investigation in the gradual process through which teachers accommodate innovative practices and instruments into their classrooms through interscholastic exchange. Teachers in successful correspondence exchanges often adapt their individual teaching style to that of their distant colleagues. Recent research suggests that in computer- mediated interscholastic exchanges teachers negotiate and modify their instructional approaches to the teaching of writing in the context of a joint editorial board project (Sayers, in press). This process of mutual accommodation of teaching approaches deserves further investigation. Dialogue journals kept between researchers and teachers and between teachers themselves (Kreeft, Shuy, Staton, Reed & Morroy, 1984; Sayers, 1986a; Staton, Shuy, Kreeft & Reed, 1982) could prove valuable as a research tool for documenting a subtle process of reflection and questioning on approaches to teaching. In both classes involved in a partner class collaboration, the existing required curriculum detailing the course content and material to be "covered" will constrain the degree of freedom which teachers have to initiate joint activities. In many cases, the manner in which these required curricula are outlined affects the way in which content is taught; the mandate to teach initial consonant clusters in language arts classes increases the likelihood that lessons on this "subject" will be given in isolation from students' actual writing samples. If two teachers decide to organize their interscholastic exchange in order to produce a jointly edited newspaper or literary review, their efforts may be viewed as conflicting with the stated objectives and sequence of the standing curricula. Future research can address the question of the "fit" between an existing curriculum and networking activities by documenting teachers' efforts to accommodate their joint projects to the demands of curricula in two classrooms.

Freinet emphasized the importance of providing educators with adequate and appropriate support materials, including

audiovisual equipment and teacher- authored manuals, student guides in the form of handbooks that could be easily adapted to a number of instructional sequences as needed, and monographs on classroom-tested teaching techniques written by MSM colleagues. By comparison, there are few materials available for teachers who wish to introduce complicated computer networking technologies into their classrooms. Investigations are needed into successful and less productive design features of teacher support materials for use with contemporary technologies.

Organizational and structural issues

The matching of classes, the arrangement of clusters and the questions of frequency of exchange: While many of the MSM partner classes are paired through informal contacts between teachers, several thousands of classes each year are matched through the efforts of a special bureau of the ICEM. Moreover, the ICEM arranges for most of the assignments of partner classes to cluster class groupings, in which 4 to 6 pairs of partner classes exchange materials on a regular though less frequent basis than do the partner class collaborations. A related concern is the optimum frequency of exchange both between partner classes and among cluster classes. Newer technologies for effecting the exchange of writings have introduced new possibilities. Telecommunications technology, for example, permits nearly instantaneous or next day delivery of messages to individuals or groups. Research is needed which investigates those factors that foster or impede effective matches whether using traditional surface mail or electronic message systems.

The role of the teacher in arranging for pairing of students and nominations for group projects

The matching of students for one-on-one correspondence and the nomination of pupils for group activities is an issue which receives much attention in the literature on the MSM. This logistical question of matching students is one of the first decisions a teacher must make when participating in a writing network, and it raises a primary concern we will confront repeatedly in discussing directions for research in technology-mediated networking, namely, "Who's in charge here?" The MSM monograph on interscholastic correspondence indicated two possibilities for pairing students: negotiation between the two teachers and selection by the students themselves. The latter procedure was recommended since it encourages students to assume personal responsibility for maintaining the correspondence.

However, even if the teacher allows students to select partners for correspondence and to determine who will work on which group projects, her responsibility for maintaining the interscholastic exchange will require her intervention at many

points. For example, if one student is sick when an envelope is filled with the remaining students' correspondence and is ready to be sent, the "sending teacher" will need to write a letter to the distant student explaining the situation, or she must arrange for another student to write an extra letter. The practice of "lightning correspondence exchange," where envelopes are regularly and frequently sent without waiting for every student to write, seeks to disentangle the teacher from a controlling role and to turn the responsibility for maintaining the exchange over to the students. Yet in every classroom, students move away and new students enroll, partnerships solidify and fall apart, groups emerge, regroup, and disintegrate, and teachers must monitor this fluid situation and adapt the changing reality of the classroom to the need for continuity and stability in the correspondence exchange. Thus an important area of research suggested by the MSM literature is the examination of the role of the teacher in arranging for student correspondence or in delegating authority for this arrangement, as well as her role in adapting and modifying correspondence partnerships and group membership according to the changing realities of the classroom.

The "mix" of one-on-one correspondence to collective work and group correspondence

The MSM experience suggests that a blend of one-on-one "pen pal" correspondence with collective communications achieves a necessary balance between students' need to establish an affective basis for communication and the greater educational potential of elaborated group projects. Many correspondence projects never move beyond one-on-one letter writing. On the other hand, one computer network which began with letter writing has subsequently rejected this form of written interaction as unproductive, preferring instead to encourage project-oriented communications between students over an electronic mail network (Riel, personal communication, 1987). However, this issue of effective balance between individual and collective communications is an empirical question which future research can address.

Another related structural issue raised by the MSM experience is concerned more with the collective aspects of exchanges both between partner classes and between classes in a cluster. Recent studies of computer writing networks have underscored the importance organizing the activity structure of group projects by assigning students clearly defined roles which have counterparts in real-world activities (Newman, 1987; Riel, 1985; Sayers & Brown, 1987). For example, the general activity structure of newspaper production suggests specific roles, such as reporter, local, regional, and international editors, photographer, graphic artist, typesetter, and printer, which are familiar to students and teachers alike and which permit the

elaboration of connections to ongoing enterprises in the community (Riel, 1983). Newer educational technologies, such as word processors and telecommunications, allow students and teachers to reproduce the newsroom in their classroom, converting the classroom computer into a teletype and a text editor. Further research should continue to provide insights into the features of activity structures for effectively organizing collective projects in intercultural learning networks.

Networks as social contexts for literacy development

Computer-mediated correspondence networks afford researchers a particularly rich setting for investigations into literacy development (Cummins, 1986; Daiute, 1985a & 1985b; Levin et al., 1984; Riel, 1985; Rosa & Moll, 1985; Sayers & Brown, 1987). Especially notable are the many occasions for examining the relationships between spoken and written discourse. As students give updates to their classmates on the letters they receive from their correspondents and as they plan group activities and complete joint projects, researchers have multiple opportunities to explore connections between students' spoken language, their written texts, and the activity structure of a shared task.

Moreover, the frequent use of audiotaped and videotaped messages in correspondence networks adds another interesting dimension to research into literacy acquisition and its relationship to oral language development. An Italian researcher was the first to examine the similarities between the process that students employ in the planning and production of audiotaped letters and the process whereby they create written texts. The exchange of "spoken letters" between Italian MSM classes was viewed by Francesco Tonucci (1981) as an especially effective way to lower the threshold for young authors into the world of writing. To compose a group audiotape requires a considerable amount of planning, so as not to leave out important details or include repetitions. While squarely based on existing oral language skills, the recording of tapes made demands on students which Tonucci asserts are similar to those of written compositions:

a) to communicate with someone who isn't present, to whom it is necessary to be explicit and to explain everything;

b) to plan the speech, to anticipate its parts and assign them to different speakers;

c) the impossibility of using gestures, facial expressions, and other indicative movements that simplify the understanding of oral language so much; and,

d) not receiving an immediate reply and having to wait for one (Tonucci, 1981, p. 41).

Tonucci claimed that "spoken correspondence," composed by groups of students for a distant audience, served as a bridge between oral language skills and formal writing. This research, exploring the interrelationship of spoken and written language development, exemplifies the type of investigation possible in the context of technology-mediated correspondence networks.

Cross-cultural studies of cognitive and moral development and the fostering of critical consciousness

Moral development in children, both within and across cultures, is another area of research suggested by the practice of the MSM network. Important pioneering investigations have already begun. Canadian researchers, using instruments based on Kohlberg's moral dilemmas, have documented the advanced moral development of students in a Freinet school in Quebec as compared with pupils in a nearby Catholic school (McCann & Bell, 1975). This research report is the single scholarly investigation available in English on the educational outcomes of the Modern School Movement, and has opened the way for future studies.

One particularly promising line of research suggested by correspondence networks in the MSM is that of empirical studies into cross-cultural interaction. Students and teachers from different schools operate in distinct cultural milieus, whether they are situated in distant countries or within a single nation (that is, between regions, among ethnic groups or across diverse educational settings in urban and rural areas). When research is centered on the making of mutual meanings and the gradual taking of new perspectives by specific classes engaged in concrete joint projects, many useful research questions can be proposed, tested, rejected, and refined concerning each of the cultures involved. Mikhail Bakhtin's writings on cultural understanding seem especially pertinent in considering interscholastic exchanges as a possible setting for cross-cultural research.

> In the realm of culture, outsidedness is a most powerful factor in understanding. It is only in the eyes of *another* culture that foreign culture reveals itself fully and profoundly. ... A meaning only reveals its depths once it has encountered and come into contact with another, foreign meaning: they engage in a kind of dialogue, which surmounts the closedness and one-sidedness of these particular meanings, these cultures. We raise new questions for a foreign culture, ones that it did not raise itself; we seek answers rto our own questions in it; and the foreign culture responds to us by revealing to us its new aspects and new semantic depths. Without *one's own* questions one cannot

> creatively understand anything other or foreign (but, of course, the questions must be serious and sincere). Such a dialogic encounter of two cultures does not result in merging or mixing. Each retains its own unity and *open* totality, but they are mutually enriched. (Bakhtin, 1986, p.7)

By focusing on the day-to-day functioning of students and teachers in correspondence exchange networks, cross-cultural investigators can avoid the difficulties of drawing conclusions across samples from multinational survey research as well as the limitations inherent in generalizing from isolated ethnographic case studies. Computer-mediated correspondence offers a particularly efficient context in which this type of research may be conducted, since a written transcript of key communications is maintained against which other evidence, gathered using several research strategies, can be compared.

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